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RESISTING CLOSURE: THE PASSACAGLIA FINALE FROM GYÖRGY LIGETI'S *LE GRAND MACABRE*

There is little in the way of resolution in the narrative plot of György Ligeti's opera *Le Grand Macabre* (1974–7, revised 1996).¹ The grotesque comedy plays on the fear of death: Nekrotzar, the personification of death, threatens the people of the hedonistic and gluttonous world of Breughelland with the apocalypse. In the event, Death himself shrivels up and dies, having failed to deliver on his promise.

Resistance to closure is also palpable in the form of references to genre models and musical styles of the past that are juxtaposed and subverted. Of specific interest in this article are what have been described as tonal allusions or dislocated tonal harmonies in the Passacaglia finale (see e.g. Searby 2010, p. 53, and Griffiths 2010, p. 359). While much has been made of these, notions of functional hierarchy or even pitch centres do little to explicate the underlying processes that contribute to the sense of perpetual unfurling as the radiant Passacaglia frames the ambiguous conclusion. Contained within the resistance to tonal teleology is a process of differentiation in the pitch material, which mirrors and enhances the open-ended narrative plot. With the term 'differentiation', I mean to emphasise the intervallic characteristics in the music and their flexible development, rather than the analysis of pitch-class hierarchies. In my attempt to describe how this takes place, I refer to Ligeti's creative process, his sketches and comments, as well as existing analyses, before arriving at an analysis of the pitch material that is reciprocal to the experience of perpetuity which characterises the Passacaglia. In conclusion, I will suggest how Ligeti's conception of the material and approach to pitch organisation can be understood in the broader context of modernism and the composer's musical heritage.

The Passacaglia has received a great deal of attention from scholars in terms of Ligeti's compositional development and move in the direction of intervallic transparency following works characterised by textural saturation, such as the 'Introitus' from the Requiem (1963–5) and *Lontano* (1967). Alastair Williams perceives the opera as a turning point in Ligeti's gradual reclamation of melody and harmony 'because of its return to harmonic progression, particularly in the final scene' (2004, p. 514). Paul Griffiths suggests that 'dislocated tonal harmony' arrives in parts of the *Le Grand Macabre*, as well as in the harpsichord pieces *Hungarian Rock* and *Passacaglia ungherese* (both 1978): 'a harmony in which simple consonances return, but not in the right order, producing a disturbing or

comic effect of tilting’ (2010, p. 359). For Michael Searby, the work signals a point of crisis, marking the shift from a modernist approach to a conscious engagement with the past and a tonally related musical language, compounded by a period of ill health and relative compositional inactivity, which was broken by the consonant Horn Trio of 1982 (2010, pp. xv and 4).

These observations serve to substantiate Ligeti’s own comments regarding the Passacaglia and its consonant characteristics:

The passacaglia is the only section of the opera that is wholly consonant. The bass subject consists of twelve minor and twelve major sixths, one major and one minor sixth for all twelve notes of the chromatic scale. The resulting twenty-four intervals do not make up a real bass subject, they serve as a frame, which is filled up by major and minor thirds. Consequently, you get major and minor chords. All are consonant chords, sweet, almost syrupy, but it is not tonal music. (Ligeti 1983, p. 70)

Previous analyses all direct a level of focus towards explicating the consonant characteristics in the Passacaglia, apparently corroborating Ligeti’s comments. There is, however, no consensus as to how these consonances relate to the wider structure and compositional processes behind the Passacaglia. Ligeti’s compositional approach certainly gives rise to degrees of consonance, yet attempts to clarify the allusions to tonality in the music have distracted attention from the direction in the music as it unfolds. Rather than represent any sort of reinstatement or recovery of the past on harmonic grounds, I will argue that the Passacaglia is an attempt to create differentiation in pitch material. As such, it constitutes a response to both progressive means of systematising pitch material and moves to revive any sort of tonal functionality of the past, and instead builds on an alternative – less explicit but no less significant – compositional trajectory in the twentieth century, one that may be traced back to the music of Béla Bartók and its analysis by Ernő Lendvai.

The Unfinished Past

The Passacaglia commences with a consonant cycle of dyads as two young lovers, Amanda (soprano) and Amando (mezzo-soprano), emerge from the tomb to which they retreated at the beginning of the opera, unaware of the events that have unfolded above them. They sing stylised cantilenas to the words ‘Ah, it was good in that dark grave, alone with thee, my dear, sweet knave!’ (on the sketch: ‘Ach, es war gut im dunklen Grab, allein mit dir, du süßer Knab!’ – see Plate 1), and soon afterwards an alto saxophone enters with short melodic interjections.² Their dolce tones are accompanied by the cycle of 24 dyads comprised of sixths, the chromatic motion of which is perhaps reminiscent of Purcell’s chaconne in *Dido and Aeneas*. In Dido’s lament the ground bass loops are stretched over

Plate 1 Ligeti, sketch page '31 IV'

Handwritten musical score for '31 IV' by György Ligeti. The score is written on multiple staves, with measures numbered 1 through 24. The notation is complex, featuring many notes, rests, and various markings in red, blue, and green ink. The score includes measures grouped by brackets and some measures with additional markings like 'Sax' and 'Sax!'. The overall style is highly detailed and expressive, characteristic of Ligeti's work.

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irregular five-bar groups, the descending chromaticism of the seventh suspensions in the bass repeats continuously and the dissonances fall on the strong beats as she meets her prolonged and mournful fate. A similar transition into the eternal afterlife is averted by

Ligeti – Breughelland is spared – but the ambiguous narrative outcome that leaves us stranded in the infinite present is no more determinate.

The looping pattern of the Passacaglia bears similarities with an earlier section of *Le Grand Macabre*: the ostinato theme from the Ivesian ‘Collage’ at Fig. 451 in the score. The ‘Collage’ is just what it implies: a mine of pastiche and references to genre models that build towards a cacophonous climax. The theme from which it expands is an adaptation of the melodic bass motif from the finale of Beethoven’s ‘Eroica’ Symphony. It also evokes associations to the passacaglia from the fourth interlude of *Peter Grimes*, in which a similarly paced pizzicato bass ostinato is joined by a solo viola. (I shall return to the ‘Collage’ theme in more detail below.)

The ‘Collage’ and Passacaglia, and the opera as a whole, feature an abundance of allusions to music of the past; these have been thoroughly documented and appraised in previous investigations. Peter von Seherr-Thoss’s study of the sketches and libretto for the original version (Seherr-Thoss 1998) tracks the conception of the opera and gives an indication of the wealth of intertextual references that it contains. Yayoi Uno Everett approaches the opera through an examination of how parodic episodes on a surface level are overridden by the ‘expressive opposition between ludicrousness and horror’ which prevails on a global level (2009, p. 29). Her analysis, with its roots in semiotics, demonstrates how parody is systematically correlated with these two opposing expressions as it traces the grotesque and existential narratives that are established during the opera.

Both studies signal the grotesque as a significant theme in understanding the relationship of the opera to its musical and cultural past. Seherr-Thoss (1998, pp. 111–25) cites the literary and artistic influence of grotesque realism in the work of Rabelais (as interpreted by Mikhail Bakhtin) on Ligeti’s development of the narrative in the opera, whereas Everett ties the grotesque more closely to the transformation of musical quotations and stylistic references. These musical references contribute to the grotesque trope, which, in accordance with Bakhtin’s concept of grotesque realism, resists closure and mirrors the lack of resolution in the opera’s narrative (Everett 2009, p. 52). In his study, Bakhtin argues that Rabelais’s imagery of the body depicts hybrids of the natural and the artificial to underscore the unresolvable nature of such binary categories. Bodies depicted in the throes of death were accompanied by images of another body being born:

This is not an abstract absolute negation that clearly cuts off the object from the rest of the world. The time-space negation does not make such a division; it considers the phenomenon in its becoming, in its movement from the negative to the positive pole. It does not deal with an abstract concept (for this is not logical negation), it actually offers a description of the world’s metamorphoses, its remodeling, its transfer from the old to the new, from the past to the future. It is the world passing through the phase of death on the way to birth. (Bakhtin 1984, pp. 411–12)

The semantic narrative of Ligeti's opera displays a negation of abstract meaning and resistance to closure comparable to that described by Bakhtin. Death dies and humanity is given a new chance – or chances, given the potential repetition of the ritual ad infinitum. Moreover, the process of becoming and renewal arises from Ligeti's representation of a fragmented and negated past in the music.

Ligeti's engagement with the musical past is further addressed in Amy Bauer's (2011) study of the lament in the broader scope of the composer's oeuvre. For Bauer, the lament is emblematic of the paradoxical, expressive power of the past in the present. Ligeti's incorporation of what was originally a Baroque vocal genre builds on affective sentiments of loss in relation to the past. Yet the nostalgia of the lament articulates an expression beyond that of sorrow and becomes a form of modernist melancholy, 'a compositional aesthetic broad enough to grieve the past without excluding the present' (p. 4). The passacaglia (or lament ostinato), a feature of nearly all Ligeti's multi-movement works after 1982 (Bauer 2011, p. 3),³ corresponds with the qualities of the lament, notably in the sense of loss with which the form is normally associated. As Bauer notes, the *pianto*, or movement in minor seconds, associated with the passacaglia – an efficient musical signifier of grief, replicating the weeping voice – is recursive in Ligeti's passacaglias, which often emphasise a sense of lacking and spiral towards an uncertain closure (2011, pp. 57–64). The chromatic tendencies and compositional processes in the finale of *Le Grand Macabre*, as my analysis will show, are indicative of the kind of 'drive' and perpetuity described by Bauer (p. 20), which moves the music beyond or severs it from any direct connotations to the past – in this case, allusions to tonality in particular.

In view of the different perspectives on the past as a process of becoming in Ligeti's music in the above-mentioned studies, my intention here is to investigate how the Passacaglia critically engages with the past regarding what might on the surface appear to be tonal allusions. An analysis of the pitch material will question the cogency of references to dislocated tonality and explore the ways in which the music resists any such categorisation. Moreover, I will consider how the overall impression of development and unfolding is achieved.

The Dyadic Loop

The dyads that initiate the Passacaglia stand in contrast to the monophonic melodic line from which the earlier 'Collage' expands. Each of the twelve pitch classes occurs twice during the first twelve dyads, performed by pizzicato strings and staccato woodwinds. Each note pair comprises either a major or minor sixth. The complete cycle of dyads is found in the sketch material for the Passacaglia (see Plate 1), where they are numbered 1–24. Two of Ligeti's sketch pages detailing the musical material for *Le Grand Macabre*, housed at the Paul Sacher Foundation in Basel, relate explicitly to the Passacaglia.⁴ The first of these, a page numbered 'VI', features the Passacaglia dyads and a reference to the libretto: 'lebt wohl' ('farewell'). This page covers the music from Figs. 688⁺⁴ to 691⁺³ in the revised score. The Passacaglia appears notated in greater detail – with orchestration, further

excerpts from the libretto and melodic material – on a separate page numbered ‘31 IV’. The Passacaglia dyads from page ‘VI’ are notated on the first two staves of ‘31 IV’ but have been crossed out. They then appear transposed up a semitone on the subsequent staves, as featured in both the original and the revised published versions of the score.

The cycle of major and minor sixths on sketch page ‘31 IV’ continues all the way up to the end of the opera, with the exception of the very last chord, where the sequence is broken following the twenty-first dyad, ending on 7. Sketch page ‘31 IV’ resembles a condensed score and is an outline for Figs. 674–682⁺². The dyads appear as in Ex. 1 in the sketches and in the revised score. All twelve pitches feature four times in the course of the 24 dyads, each one consisting of an interval of either a minor or major sixth: twelve minor sixths and twelve major sixths. Ex. 2 shows the dyads arranged in alternating major sixth/minor sixth chromatically ascending order. The uniformity of this primary material does not necessarily entail that the process of ordering these dyads is the result of any rigorous approach to pitch organisation, nor is it necessarily left to chance. The relationship of the rhythm to the 24 dyads – in combination with the chromatic relationships between consecutive dyads – exposes patterns in the material, possibly indicating how the dyad cycle was composed.

The rhythm of the Passacaglia ostinato recalls the ‘Collage’ ostinato at Fig. 451, which in turn follows the same rhythmic structure as the aforementioned ‘Eroica’ motif. Although the rhythmic pattern in the ‘Collage’ is thirteen notes long, the same as Beethoven’s original, there are twelve pitches in Ligeti’s row; the pitches are therefore displaced one position to the left at each repetition of the melodic line (Ex. 3). Joseph Delaplace examines the ostinato rhythms in *Le Grand Macabre* and analyses the Passacaglia ostinato as a variation on the ‘Collage’ rhythm borrowed from Beethoven (2003, pp. 35–56). The rhythm and the run of five consecutive notes, three notes and single notes separated by rests are similar; he divides the groups of notes in the Passacaglia into 5 + 1 or 2 + 1 + 3 (= 5 + 1) accordingly (see Ex. 4, above the staff). The transition from single notes followed by rests to pairs of notes and finally to groups of three creates a layered effect in the ostinato. The repetition of the loop fortifies the polyrhythmic feel as the groupings return. A double ostinato forms, with the brackets showing the symmetrical repeating pattern as the loop goes round. As Delaplace points out, the ostinato contributes to establishing the homogeneous texture of the Passacaglia (see Delaplace 2003, p. 43, and Searby 2010, p. 51).⁵

Delaplace proceeds to analyse the pitch material of the 24 dyads in the Passacaglia in relation to the ostinato, dividing the pitches into groups of six according to the four repetitions of the ostinato (2 + 1 + 3) (dyads 1–6, 7–12, 13–18 and 19–24). A statistical analysis of the four groupings reveals that the first three groups contain eleven different pitches (one pitch in each is repeated), while the last group contains ten different pitches. He also demonstrates that most of the groups contain varying numbers of major- and minor-sixth dyads; however, no wholly consistent pattern would seem to account for the dispersal of the pitches according to the six-note ostinato.

Ex. 1 Passacaglia dyads (Fig. 674) © with kind permission of SCHOTT MUSIC, Mainz – Germany.

Ex. 2 Passacaglia dyads in chromatically ascending order

Ex. 3 ‘Collage’, twelve-note row with Beethoven’s thirteen-note rhythmic structure © with kind permission of SCHOTT MUSIC, Mainz – Germany.

Ex. 4 Delaplace and Searby ostinato and pitch grouping in the Passacaglia finale

Ex. 5 Chromatic progression

The image displays musical notation for 24 dyads, organized into two systems of 12 dyads each. Each dyad is represented by a pair of notes on a treble and bass staff. The dyads are numbered 1 through 24. Arrows indicate the chromatic progression between the notes of each dyad and the notes of the following dyad. The notation is in treble and bass staves, with arrows indicating chromatic movements between notes.

Searby goes into less detail regarding the ostinato layers and instead groups the dyads according to the ‘upward wave shape’ (A and C in Ex. 4, below the staff) and the ‘symmetrically opposite downward wave shape’ (B and D) of the pitch material, which he argues provide the basis for the rhythmic structure 1 + 5 + 1 + 5 + 1 + 5 (2010, p. 50).⁶ The 24-dyad cycle is thereby divided into groups of five crotchets and single crotchets – each with a crotchet rest on either side.

Searby identifies similarities between what he terms groups A and C and groups B and D, suggesting that Ligeti may have used the first twelve dyads to generate the second twelve (2010, p. 50). (Searby’s grouping of the twelve dyads begins on chord 3 of Ligeti’s dyadic sequence – W in Ex. 4. Chords 1 and 2 are the last two chords of Searby’s sequence.) He identifies patterns in the material; however, as Delaplace illustrates, other patterns relating the sequence to ostinatos derived from elsewhere in the opera (the ‘Collage’ in particular) can also be identified.

The relationship between the two sets of twelve dyads, inferred by Searby, can be interpreted in a number of ways. Following Ligeti’s numbering of the dyads, corresponding thematic contours can be identified between dyads 1–12 and dyads 13–24, as shown in Ex. 5. The progression of the sequence is characterised by chromatic motions reminiscent of a lament passacaglia; the vast majority of the dyads contain a pitch one semitone apart from one of the pitches in the preceding dyad. The first twelve-dyad pattern is dominated by rising chromatic movements (disregarding octave transpositions), while dyads 13–24 contain a greater balance between upward and downward chromatic movements. As illustrated in Ex. 5, many of the semitone movements in 13–24 mirror, or are inversions of, the semitone movements of 1–12. Dyads 13 and 14 feature the same interval and chromatic motion as dyads 1 and 2 but now appear an octave and a major third (or inverted minor sixth) higher. Dyads 16–19 are a mirror inversion of chords 4–7, transposed a semitone. It would seem that these dyads are worked out in correspondence with the twelve-note ostinato. The semitonal movement of dyads 13–24 goes predominantly against that of

dyads 1–12. Moreover, different ways of developing the material (transposition, inversion, etc.) seem to be applied to the groups of notes separated by rests.

However, neither the rhythm, nor the chromatic movement, nor the various strategies of developing the material alone would seem to account fully for the distribution of the dyads. A more straightforward way of interpreting the material might be to regard the 24 dyads of the chromatic scale as a source of material, as shown in Ex. 2. Each dyad is used once. It is plausible that twelve of these dyads were selected in consideration of the chromatic possibilities inherent in the material. Having established the first twelve dyads, twelve remain from which the chromatic movement and similar intervallic patterns could then be extracted. It is also conceivable that the first twelve dyads were composed simultaneously with the second twelve to ensure that certain intervallic structures remain; the mirror inversion of dyads 16–19 transposed up a semitone suggests that this might be the case. Either way, it seems that the chromatic nature of this source material is reflected in the way the dyads are organised as they progress, if indeed the dyads were extracted from such a source material.

There is, however, much more to the pitch material in the Passacaglia than the dyads alone. Searby argues that the Passacaglia is structured according to the dyads, to which further pitches are attached (2010, p. 51), as Ligeti himself indicates in the interview quoted above (Ligeti 1983, p. 70). Searby lists the various chord types that feature in the Passacaglia and provides some evidence that ‘the later chords become much more dissonant and cluster based’ (Searby 2010, p. 53). Yet there are other subtle ways in which the additional pitches may be attributed to the unfolding processes and relationships within the material which are not explicitly addressed by Ligeti.

Although the fundamental pitch material is rigorously conceived – the stable use of sixths in combination with all twelve pitches used four times each over the 48-note structure – the way in which the dyads are arranged and the irregular appearances of further additional pitches create differentiation in the material. Differentiation is also achieved by the changing relationship of the rhythm to the repetition of certain intervallic patterns, exemplified in the contrast between dyads 4–7 and dyads 16–19. These variations are not imposed on an original theme, but form a never-ending loop of differentiation into which we are dropped. I will return to these significant characteristics of the material in greater detail shortly.

It soon becomes apparent that the dyadic loops are only part of what might be considered a more extensive source material that is gradually revealed. From the second beat of Fig. 675 – the beat following Amanda’s vocal entry on dyad 24 of the previous cycle – the harmonic structure develops further. Sixths continue to be the governing force behind the generation of the pitch material as more notes are added to the harmonies. The dyads gradually become triads during the first repetition of the ostinato rhythm. There is no rest between dyad 24 and dyad 1 as the repeat begins. Amanda’s first and second notes of the Passacaglia, both E_bs, occur on the twenty-fourth and first chords of the sequence. E_b is already one of the pitches in the twenty-fourth dyad but not the first dyad; thus, a triad is

Ex. 6 Fig. 675, Amanda's entry

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675

P *semplice, sempre cantabile*

Amanda

Ah, it was good in that dark grave, a - lone with

24 1 2 3 4 5 6 7 8 9 10 11

Ex. 7 Major sixth (M6) and minor sixth (m6) extensions

The musical notation shows the 12-tone scale in G major. The notes are: G (1), A (2), B (3), C (4), D (5), E (6), F# (7), G (8), A (9), B (10), C# (11), and D (12). The scale is written in treble and bass staves. The notes are labeled with their scale degrees (1-12) and chromatic alterations (M6, m6). The sequence of notes is: G (1), A (2), B (3), C (4), D (5), E (6), F# (7), G (8), A (9), B (10), C# (11), and D (12). The scale is written in treble and bass staves. The notes are labeled with their scale degrees (1-12) and chromatic alterations (M6, m6). The sequence of notes is: G (1), A (2), B (3), C (4), D (5), E (6), F# (7), G (8), A (9), B (10), C# (11), and D (12).

Ex. 8 Ligeti's interpretation

formed. Her melody also draws on the chromatic movements inherent in the dyadic pattern illustrated in Ex. 5 above, again suggesting the influence of the lament passacaglia. In Ex. 6 we see that the chords numbered 1, 3 and 6 contain thirds (inverted sixths). These added thirds become more frequent until finally a majority of the chords contain either a major- or minor-third consonance. As shown in Ex. 7, the initial dyads are extended by inversions of either the major or minor sixth; that is, a minor-sixth dyad is extended by a major sixth above and below and vice versa.

Ligeti acknowledges the harmonic qualities of individual chords in a short passage in the sketch material for the *Passacaglia*, as shown in Ex. 8. Despite the explicitly triadic, consonant qualities of the material, the relationship between the chords is not functional, even in a fragmentary sense. Yet given the principal significance of thirds and sixths, the chords might be described as an allusion to triadic tonality. Also, Ligeti's curious treatment

Ex. 9 Chromatic scale in sixths

of the root of each seventh chord in the example (the chord symbols) – if we should choose to interpret them as such – as some type of displaced or disassociated bass note that does not belong to the harmony further undermines any allusion to tonal functionality.

Instead, it is possible that Ligeti's reference to the consonant characteristics of the material is simply an acknowledgement of the symptoms of another underlying compositional process. While triadic harmony is evoked, the observations that Ligeti makes in the sketches need not detract from the even more significant ways in which differentiation in this material – not related to functional harmony or tonality – is achieved.

Process and Differentiation

Despite the triadic features of the pitch material, the conception of the intervallic relationships can be understood very differently. In Ex. 9, the framework of the Passacaglia is presented as a chromatic pitch source from which dyads and triads are extracted. That is not to say that the material was necessarily composed in precisely this way, but it does offer a means to account for the pitches, at the same time that the immanent processes and differentiation are highlighted (compare the progression in Ex. 7 with the chromatic scale in sixths in Ex. 9). The chromatic unfolding of the dyads on a surface level demonstrated in Ex. 5 gives further cause to explore the fundamentally chromatic foundations of the Passacaglia. This pitch frame might be considered a comprehensive source of which only fragments are gradually exposed. This kind of static pitch field brings to mind analogies with art, as it becomes apparent that it is not the potential stasis of the material presented in its full extent that is significant, but how the pitches are revealed. We are guided around the material as it unfolds kaleidoscopically – sections become visible as if seen through a fragmented lens.

When the dyads are extended in the first half of the Passacaglia (up to Fig. 687), the upper three or lower three notes of each chord are used together, and on occasion a seventh is added; for example, Ligeti signals on his sketch (see Ex. 8) that the C minor chord with an A $\flat$ in the bass may be accompanied by an additional B $\flat$. There are also several other deviations from the pattern; for example, the insertion of a B and E $\flat$ dyad between the second and third dyads of the sequence in Fig. 681⁺⁴. This modification is found on sketch page '31 IV' (see again Plate 1) on the last beat of the second-to-last bar of the page. This

Ex. 10 Figs. 677^{+4} – 679^{+2} (brackets left) and 679^{+2} – 681^{+4} (brackets right)

and similar embellishments elsewhere bring added fluidity to the vocal lines and accommodate the libretto.

While the core dyads of the chromatic pitch source always appear in sequence as the ostinato repeats, the inclusion of upper or lower triads is not consistent. As a result, certain pitches feature more frequently than others, forming a hierarchical structure that is not tonal but does have differentiating characteristics. Different pitches from the 24-chord chromatic frame are emphasised in different iterations of the ostinato. The impression is of a harmonic structure less ‘flat’ than any consistent approach to pitch distribution might have entailed. See, for example, the ostinato cycle from Fig. 677^{+4} to Fig. 679^{+2} in Ex. 10. When triads are used – of the first twelve chords only 5, 7 and 12 are triads at this point – they are indicated by brackets to the left of the chords. In the ostinato cycle immediately following this one, from Fig. 679^{+2} to Fig. 681^{+4} , the triads featured are indicated by brackets to the right. While the core dyads remain the same, the addition of a major or minor sixth above or below – creating a triad – varies between the ostinato cycles in (a) Fig 677^{+4} to Fig. 679^{+2} and (b) Fig. 679^{+2} to Fig. 681^{+4} (chords with no bracket feature as dyads). Most of the pitches added can be conceived as being taken in alternation from above or below the dyads in the chromatic pitch source. Only three of the first twelve chords feature as triads in cycle (a) (5, 7 and 12); however, chords 13–24 are nearly all triads. Only chords 19, 20 and 24 feature the same sixth extension above or below the dyad in both iterations of the ostinato cycle. Given that the exterior orbiting intervals are subject to change, some pitches inevitably gain more exposure than others. There are 48 possible triad combinations, not all of which are used as regularly during the Passacaglia. With the irregular distribution of the notes over a 24-chord sequence, the auditory impression is that the harmony is somehow functional. Had all the possible inversions and major- and minor-third possibilities occurred with equal frequency, the ostinato structure might well have sounded more consistent and less dynamic, becoming a sequence of statistically equal, freestanding constituents.

The tonal or harmonic sound of the separate chords in themselves does not of course ensure any relationship to the wider harmonic progression; the chords are integrated with one another by virtue of the irregular occurrences of pitches and their differentiation, establishing a ‘felt’ progression in the material. By using either one or the other of the

inversions for a sequence of consecutive triads, the intervallic tendencies in the material maintain a certain harmonic character as the process unfolds. When sequences are succeeded by inversions of their orbiting notes, the sixths provide a familiar core while the orbiting notes, although subject to change, maintain a similar function in relation to these core sixths.

The Revisions

For the revised version of the opera, significant changes were made to the Passacaglia from Fig. 687 to the end. The ‘Choral’ (as it is titled in the sketches), Figs. 687–690, was reworked: the Black and White Ministers now also participate, and the vocal lines are distributed differently among the singers.⁷ Orchestral material deviates only slightly from the original version up to this point. After Fig. 690, what we hear is largely an extension of the original, adding a further nineteen bars to the Passacaglia. These bars draw on the same ostinato structure and contribute further variants of the musical material, in keeping with the processes outlined in my analyses above. (A brass interjection from Fig. 691 is also based on this material.)

The texture towards the end was also reworked. In the revised version the strings play pedals and the basses sustain a deep, ominous tone. Furthermore, in the original version the rhythm of the ostinato had continued unchanged up to the end – the pattern persisted while a *rallentando* was performed. In the revised version the pattern is augmented as note values are gradually lengthened proportionally; the *allargando* is now notated. The increasing note values, with gradually longer rests in between and pedals, extend over a wide tessitura, and imbue the ending with a greater sense of ethereality than in the abrupt conclusion of the original. The *allargando* in the final bars of the revised version lends a sense of dignity as the opera melts away, in contrast to the sextuple forte of the original.

Different adaptations of the ‘Choral’ ending were created soon after the original version of the opera was premiered. Versions for Copenhagen and Berlin performances are included among the sketches.⁸ The Berlin version was adapted for the premiere of the two-movement *Scenes and Interludes from Le Grand Macabre* on 21 December 1978. The Copenhagen version, dated January 1979, was created for a performance of the same work in Copenhagen on the nineteenth of the month.⁹

While the musical material discussed in the analysis above does outline a likely source for the majority of the pitch material in the original and revised versions of the Passacaglia, after Fig. 687 – and between Figs 687 and 688 in particular – some additional pitches are introduced, adding further levels of dissonance. These pitches can be attributed to the melodic contours of the vocal lines in the ‘Choral’. The woodwinds, and also the brass, percussion and keyboard instruments, reinforce these pitches on occasion. The ‘Choral’ melody from Fig. 687 builds on Amanda’s opening melody from Fig. 675 (see Ex. 6), while the additional vocal lines of Go-Go, Amando, Mescalina, Piet, the White Minister, the Black Minister and Astradamors sing complementary movements,

harmonising and imitating the melody. While most of these pitches can be accounted for in the pitch source (see again Ex. 10), the parallel and inverted chromatic movements make divergences inevitable. In addition, sustained notes are sometimes held over several chords of the ostinato, outlasting the chord with which they shared an onset. On occasion the chords also appear in their entirety with all four pitches; for example, the first chord of Fig. 687⁺⁴ features chord 3 of the pitch material in full (F, D $\flat$, B $\flat$, G $\flat$; see again Ex. 9). Further dissonance is added to this chord as Amando and Amanda sing an A $\flat$ an octave apart, having arrived there from an A and a G respectively in a chromatic motion.

From Fig. 692 the rhythms are augmented, and the Passacaglia winds down until finally each of the voices come to rest on a different sustained pitch, making for a particularly dissonant ending. In several instances in the final bars the chords in the orchestra include a fourth note, giving the chords outlined in Ex. 10 in their entirety, while other chords feature a different pitch not a part of this frame. The texture is transformed into a celestial glow as the ostinato gradually comes to a halt. Snow starts to fall ‘covering the people onstage’ as the opera comes to an end.¹⁰

The Distance Principle

The re-emergence of consonance following Ligeti’s supersaturated textures and micropolyphonic works has largely been attributed to a stylistic crisis and regressive allusions to tonality (see, for example, Searby 2010 and Griffiths 2010). Yet consonance and intervallic structures begin to emerge from these textures prior to the Passacaglia finale, indicating that this is no simple transition from one compositional approach to another more retrospective style. In short, micropolyphony was Ligeti’s response to, and critique of, serialism; the term is now commonly applied to the cluster technique and the intricate polyphonic weave of works such as *Apparitions* (1959), *Atmosphères* (1961), the Requiem and *Lontano*. As Jonathan Bernard has discussed, for Ligeti, problems inherent in serial methods restricted the potential to achieve differentiation in the material and caused a flattening out of the music. He instead sought an expression of greater aesthetic appeal.¹¹ The dense layering of canonic threads provided a means whereby to imbue immense sound objects with a sense of dynamic change.

Already in *Clocks and Clouds* (1972–3) and *Melodien* (1971), in which micropolyphony is still the governing creative impulse, consonance and intervallic structures begin to emerge.¹² In this respect, it is potentially of more interest to explore how the pitch material in the Passacaglia might be considered in continuation with the unfolding processes of the micropolyphonic works, rather than as a regressive movement in the direction of tonal functionality, as frequent references to tonal allusions might imply. My argument is that the Passacaglia constitutes a further development in a continuing effort to inject process into musical material, albeit with increasing levels of intervallic transparency.

While the Passacaglia can in certain ways be perceived as a natural progression beyond supersaturated textures, it is also commensurate with the differentiation of

chromatic material – based on intervallic relationships rather than pitch centres or functionality – found in Ligeti’s music composed while he was still in Hungary in the 1950s.¹³ Richard Steinitz points out that Ligeti experimented with chromatic structures similar to that of the Passacaglia in an unfinished work entitled *Istar pokoljárása* of 1955; a sketch for the work shows a 24-note row with similar rhythmic and registral shapes (Steinitz 2003, p. 233). Something of the chromatic character of Ligeti’s early Hungarian works, such as the *Invention* for piano (1948) or the *Omaggio a Girolamo Frescobaldi* (1953) for organ – an organ version of the final movement of *Musica ricercata* for piano (1953–5) – is also present in the Passacaglia and in many of Ligeti’s works from the late 1970s on; these are all works in which simple intervallic relationships take precedence over pitch centres or hierarchies. Certain features, such as the chromatic expansion of register in these two pieces, are, notably, also found in the works of the 1960s; for example, the expansion of clusters into vast pitch conglomerates in *Lontano* is in many ways a continuation of the fan-like expansion of chromatic material in *Invention*.

Many of these intervallic characteristics in Ligeti’s music can be traced to the broad, pervasive influence of Bartók, which is palpable in the early works and again becomes more explicit in the late 1970s. Rachel Beckles Willson notes that further studies of Ligeti’s creative processes may reveal that Ligeti’s ‘Bartókian basis’ – or “‘musical mother tongue”, even – may have haunted him more than is currently evident’ (2007, p. 183). Far from being a purely nostalgic return to his compositional roots, this reinvestment of interest in intervallic transparency, symmetry and differentiation offered a means of moving beyond both constrictive forms of pitch organisation and the revival of tonally related languages in a postmodern context.¹⁴

In a 1955 article on Bartók’s chromaticism for the Hungarian journal *Új Zenei Szemle* (New Music Review) (see Ligeti 2007a, pp. 295–301), Ligeti picks up on René Leibowitz’s notion of compromise in Bartók’s music.¹⁵ Yet in moving beyond Leibowitz’s critique, which centres on Bartók’s failure fully to realise the uncompromising standards set by Schoenberg and his commitment to twelve-note music (Leibowitz 1948, pp. 92–123), Ligeti emphasises the diversity and rich possibilities contained in the music. Bartók’s position in the middle is said to open up an alternative beyond either diatonic systems or dodecaphony. Central to Ligeti’s argument is what he calls the *Distanzprinzip* (‘distance principle’) in Bartók’s music, a means of understanding the relationships between notes in terms not of diatonic functionality but of symmetrical scalar patterns and intervallic differentiation. Bartók’s folk-like melodies and incisive harmonies certainly often invoke tonal centres without ever following through: the never quite consummated allusions to E major in the slow third movement of the Fourth Quartet (1928) and the winding fugal entries in the first movement of *Music for Strings, Percussion and Celesta* (1936) as the intervals expand outwards from an A are just two examples. However, Bartók’s consonant sonorities do not constitute uninhibited excursions into atonality either.

It is, however, with a comment by the Bartók scholar Ernő Lendvai that Ligeti begins his article: ‘If we look back at the history and development of harmonic thinking,

then we are bound to say that the birth of Bartók's axis system was a *historical necessity*, signifying the logical culmination of the development of Western music and to some extent its climax' (Ligeti 2007a, p. 295; translation from Lendvai 1999, p. 15, emphasis in original). Lendvai in effect turns inside out the notion that twelve-note music is the logical continuation from atonality and instead places Bartók at centre stage for recognising and absorbing the consequences of both twelve-note music and 'classical harmony' (1999, p. 11). In twelve-note music, Ligeti notes, the composer sacrifices control of harmony to the linearity of the twelve-tone row and, by building up the chords in this way, of melody, too. The various layers of lines run simultaneously without consideration of the possibilities that arise from this simultaneity (2007a, p. 298).¹⁶ Bartók, on the other hand, is said to have bypassed this impasse and the belief that progressive dissonance required formulation in a constructed system; he instead devised a more freely chromatic system using the twelve pitch classes, but now in pitch fields, as demonstrated by the axis system and various other methods specified by Lendvai. As Ligeti states, 'While Schoenberg saw the culmination of atonality in the twelve-note technique, Bartók considered the twelve-tone system as a given number of pitches without the necessity of formation' (2007a, p. 299),¹⁷ maintaining the possibility of creating differentiation in the pitch material. As such, Leibowitz's compromise, as reflected in Bartók's music, represents for Ligeti a locus for further compositional incentive and innovation.

Bartók avoids both the excesses of development into ever more rationalised forms of twelve-tone music and the inclination towards any kind of 'return to' – both symptoms of attempts to postulate a causal history. As a consequence, his music does not easily collapse into simple categories. For Ligeti, Bartók's approach creates a reference system that results in the distance principle and an exploration of spatial areas between the pitch classes. This functionality in the music is not a substitution of the harmonic functionality of diatonic music but a further development, a new and more symmetrical means of creating hierarchy within all twelve pitch classes. This approach facilitates vertical and horizontal consequence in the music. It is a system that fuses both the overtone principle of the functional system and the tempered system, and one that allows further potential for the composition of differentiation in the material. Lendvai's methods have previously been the subject of criticism for attempting to account for harmony and functionality in Bartók's music in terms of diatonicism (see Wilson 1992).¹⁸ Ligeti, however, reads Lendvai's analyses as the identification of an alternative means of composing with the twelve pitch classes, beyond either tonality or twelve-note music; the system can potentially be adapted and applied in a tempered system with any number of subdivisions of an octave. He offers the traditional music of Thailand as an example, in which the octave is divided into five equidistant pitches (Ligeti 2007a, p. 299). He emphasises towards the end of his article that '[t]his in no way means the restoration of the old tonal-functional system, but its return on another, higher level, a new once again challenging and informal union that is created between the diatonic and chromatic, the overtone series and the distance principle' (Ligeti 2007a, p. 300).¹⁹

The Passacaglia finale of *Le Grand Macabre*, a striking fusion of consonance and chromaticism, clearly borrows from the idea of the distance principle in its move beyond tonality in the continuation of Bartókian tradition. It becomes evident that the very nature of the harmonic language in the Passacaglia resists closure. It is based on principles that embrace a higher level of symmetry and deny gravitation towards a fundamental pitch, instead relying on differentiation and perpetual variation. In many ways, the Passacaglia finale represents the continuation of a compositional trajectory in which intervallic qualities are combined with processes of differentiation, an approach not fixated on pitch class. The idea of process permeates Ligeti's oeuvre and corresponds with a frequent return to open-ended, ground-bass forms of the past – from the *ricercare* final movement of *Musica ricercata*, which, as Bauer suggests, builds on 'a kind of passacaglia principle in its relentless fugal imitation' (2011, p. 76), to the 'Passacaglia' fourth movement of the Violin Concerto (1990–2). The passacaglia principle makes no requirement of pitch centres or finite harmonic functionality; at the same time, it provides an ideal basis for the extrapolation of open-ended intervallic processes. These processes are by no means confined to the works that engage overtly with past musical forms. As discussed, the micropolyphonic works such as *Lontano* feature a comparable approach to unfolding or unveiling intervals or intervallic patterns, albeit in a significantly less transparent musical texture.

In the present study I have argued that the harmonies are not isolated moments of consonance, nor are they driven by the rhythm, a wave-like motion or ostinato alone. They progress as a result of the immanent differentiation of the pitch material, which, while alluding to serialism and functional harmony alike, transgresses both. Consonances in the Passacaglia can, on a fundamental level, be attributed to the extensive use of the interval of the sixth. However, static intervallic material in itself does not ensure progression, which arises instead from processes that expand from the foundations that are laid. The most significant process examined in this study involves the gradual and partial unveiling of what might be regarded as a comprehensive pitch source (see again Ex. 9). The static pitch framework is a counterpart of the differentiation in the intervallic material revealed; the process contains the potential to continue indefinitely, and the intervallic principle differentiates the pitches as they are drawn from a uniform source that is never disclosed in its entirety.

This process constitutes Ligeti's alternative path beyond the traditional teleological functionality of tonality and forms aspiring to structural unity. As such, his famously ambiguous rhetoric – his advocacy for a 'non-atonal' language that is neither the recovery of tonal features nor avant-gardist – would seem to be substantiated, to a degree. As he comments, by the end of the 1970s his music is 'neither chromatic nor diatonic – it is more like a simultaneous combination of the two' (Szitha 1992, p. 15). Ligeti looks to the past over a critical distance infused with the values of modernism; his musical language in the Passacaglia finale is that of differentiation and the evasion of closure.

NOTES

1. The revisions made to the Passacaglia for the 1996 version are discussed later on in this article. Productions of the revised version have cemented the position of the opera as one of the most successful of the late twentieth century. One of the most recent and spectacular productions – by the renowned theatrical group La Fura dels Baus – was recently released on DVD: *Le Grand Macabre* (Arthaus Musik, 2012).
2. The saxophone melodies are specified on Ligeti's sketch for the Passacaglia.
3. As Bauer (2011) notes, the *Hamburg Concerto* (1999, rev. 2002) is an arguable exception.
4. The Ligeti collection is housed at the Paul Sacher Foundation, Basel. I am grateful to the Foundation staff, and to Dr Heidi Zimmermann in particular for her insight and assistance.
5. Delaplace (2003, p. 42) also explores how a similar, coherent ostinato pattern in the 'Collage' links the materials and triggers them at different levels, resulting in a heterogenous layering effect, in contrast to the homogeneity of the Passacaglia.
6. The 'overarching rhythmic pattern' (Searby 2010, p. 50) is mentioned but there is no further embellishment on this or on the significance of ostinato patterns to the harmonic structure as explored by Delaplace.
7. Different versions of the 'Choral' were adapted for different performances and performers. This is described in letters and sketches housed at the Sacher Foundation, which refer to performers and the names of singers.
8. Ligeti made many notes in response to performances and rehearsals dating back to the opera's premiere. Many of these comments are found on hotel notepaper and other scraps of paper among the sketches. They seemingly provided a basis from which to make the revisions in the 1996 version.
9. The most significant change is the omission of Gepopo in the Copenhagen sketch. A recording of the Copenhagen version – with Inga Nielsen (soprano), Olive Fredericks (mezzo), Peter Haage (tenor), Dieter Weller (baritone), and the chorus and orchestra of Danish Radio (Copenhagen) conducted by Elgar Howarth – was released on LP (Mainz: Wergo, 1980): WER 60 085.
10. *Le Grand Macabre* 1974–7, revised 1996 (score) (Mainz: Schott ED8522, 2003), Fig. 692.
11. Bernard (1987, pp. 207–36) cites micropolyphony as Ligeti's solution in response to perceived problems of serialism.
12. Bernard (1999, p. 10 and also p. 5) discusses the gradual emergence of interval from Ligeti's micropolyphonic works..
13. Ligeti fled from Hungary to the West in 1956.
14. This is a topic of far greater scope than I will be able to address adequately in the confines of this article; although I hope that this brief concluding discussion will signal the significance of this historical perspective in light of my analysis of the Passacaglia finale.

15. Ligeti cites the same Leibowitz article in another text from the late 1950s which was broadcast on Westdeutscher Rundfunks Köln: see Ligeti (2007b), vol. 1, p. 320.
16. This notion is a pre-echo of the idea of permeability, which the composer formulated later in Ligeti (1965) (for the original in German see Ligeti 1960). ‘Low permeability’ denotes a high degree of consequence between vertical and horizontal pitch organisation.
17. ‘Während Schoenberg von der Atonalität zur Zwölftontechnik gelangt, betrachtet Bartók das Zwölftonsystem als gegebenen Tonvorrat ohne die Notwendigkeit der Reihenbildung’ (my translation).
18. The appendix in particular – ‘Ernö Lendvai and the Axis System’ – takes issue with Lendvai’s explicit analogies to harmonic functionality in tonal music. As Wilson puts it, ‘the axis system as Lendvai defends it provides no understanding of function that a careful examination of context will not reveal, and his handling of the system actually can conceal intelligible and musically meaningful relationships’ (1992, p. 208). This may be so, and the requirement that a tonic be nominated in advance in order that functional significance can be determined from all twelve pitch classes does undermine the point of departure – the analogy to tonal functionality (see also pp. 7–8). However, for Ligeti what is important is not the assignment of a tonic or analogies to functionality, but the potential flexibility of the system in order to highlight differentiating characteristics in the intervallic musical material.
19. ‘Dies bedeutet keineswegs die Restauration der alten, tonal-funktionalen Ordnung, sondern deren Wiederkehr auf einer anderen, höheren Ebene, die eine neue, widerspruchlosere Einheit zwischen Diatonik und Chromatik, zwischen Oberton- und Distanzprinzip schafft’ (my translation).

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ABSTRACT

The Passacaglia finale from György Ligeti's *Le Grand Macabre* (1974–7, rev. 1996) has been described as a point of stylistic crisis, marking Ligeti's return to more traditional compositional means. Consonances and tonal allusions in the music are regarded as indicative of this retrospective tendency. However, notions of functional hierarchy or even pitch centres do little to explicate the underlying processes that contribute to the sense of perpetual unfurling in the Passacaglia. Contained within the resistance to tonal teleology is a process of differentiation in the pitch material. In this respect, the Passacaglia might be considered a further development in Ligeti's continuing effort to inject process into musical material, albeit with increasing levels of intervallic transparency. I further substantiate this argument by situating the analytical findings in this article in a historical context.

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